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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/647,681

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Danny F. Ammar

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7590

12/02/2004

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EXAMINER

HARVEY, JAMES R

ART UNIT

PAPER NUMBER

2833

DATE MAILED: 12/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/647,681

Applicant(s)

AMMAR ET AL.

Examiner

James R. Harvey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 21-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***DETAILED ACTION***

***Claim Rejections - 35 USC § 103***

- The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

\*\* Claims 21-25 and 27-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hughes et al. (6077130).

-- In reference to Independent Claim(s) 21, Hughes shows (figure 2 ) an apparatus used in the steps of

positioning a housing member 4 against the first printed circuit board 18, the housing member including a clip receiving slot 64 ( figure 2 ) and a conductive clip member 26 received with the clip receiving slot 64, the clip member 26 including opposing free ends (36, 62 ) that extend beyond the housing member 4 which can make electrical contact such that one free end 36 of the conductive clip member 26 engages a circuit on the first printed circuit board 18 ( figure 5);

biasing the other free end 62 of the conductive clip member 6 into connection with a circuit ( column 3, line 29 ) of a second printed circuit board 20; and

can be used for the functional recitation of transferring RF signals between the boards via the conductive clip member 26.

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However, the newly amended claim language is seen to insert negative language to only requires opposing free ends (36, 62 ) and not the third free end 50.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to eliminate the third free end 50 and the associated leg 24 if it was not needed. One skilled in the art would be motivated to eliminate the leg 24 to reduce the overall weight of the assembly or to reduce the overall cost of materials associated with the assembly.

-- In reference to Independent Claim(s) 30, Hughes shows (cover sheet) providing a conductive clip member 26 that has two ((36, 62 ) opposing ends for making electrical contact between two boards (18,20), without use of connecting wires between the boards such that the conductive clip member 26 ends engage respective boards (18,20); and

can be used for the functional recitation of transferring RF signals between the boards via the conductive clip member 26.

However, the newly amended claim language is seen to insert negative language to only requires two opposing free ends (36, 62 ) and not the third free end 50.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to eliminate the third free end 50 and the associated leg 24 if it was not needed. One skilled in the art would be motivated to eliminate the leg 24 to reduce the overall weight of the assembly or to reduce the overall cost of materials associated with the assembly.

-- In reference to Independent Claim(s) 36, Hughes shows a housing member 4 having a clip receiving slot 64 ( figure 2 ) and a conductive clip member 26 received with the clip receiving

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slot 64, the clip member 26 including opposing free ends (36, 62 ) that extend beyond the housing member 4 which can make electrical contact wherein

one free end of the conductive clip member 26 engages a circuit on the first printed circuit board 18 and the other free end 62 of the conductive clip member 26 is biased into connection with a circuit ( column 3, line 29 ) of the second printed circuit board 20 (figure 5 ) and shows the same claimed structure and can complete the functional recitation of transferring RF signals via the conductive clip member 26 between the first and second printed circuit boards.

However, the newly amended claim language is seen to insert negative language to only requires opposing free ends (36, 62 ) and not the third free end 50.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to eliminate the third free end 50 and the associated leg 24 if it was not needed. One skilled in the art would be motivated to eliminate the leg 24 to reduce the overall weight of the assembly or to reduce the overall cost of materials associated with the assembly.

-- In reference to Claim(s) 22 and 35, Hughes shows (figure 2 ) shows the same claimed structure and can complete the functional recitation of transferring ground signals using other conductive clip member positioned on either side of the conductive clip member 26 that shows the same claimed structure and can complete the functional recitation of transfers RF signals.

-- In reference to Claim(s) 23, Hughes shows (cover sheet) the step of soldering the end 36 of the conductive clip member 26 engaging the first printed circuit board 18.

-- In reference to Claim(s) 24, Hughes shows (cover sheet) the conductive clip member 26 is solderless on at least one end 62.

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-- In reference to Claim(s) 25, Hughes shows (cover sheet) the same claimed structure ( figure 2 ) and can complete the functional recitation of transferring DC signals.

-- In reference to Claim(s) 27, Hughes shows (cover sheet) the same claimed structure and can complete the functional recitation of transferring RF signals at no less than 4 GHz.

-- In reference to Claim(s) 28, Hughes shows (cover sheet) a Surface mount pressure Contact 62 (figure 5).

-- In reference to Claim(s) 29, Hughes shows (cover sheet) the same claimed structure and can complete the functional recitation of mixing the RF signals with a carrier frequency.

-- In reference to Claim(s) 30, it is addressed above.

-- In reference to Claim(s) 31, Hughes shows (cover sheet) the same claimed structure and can complete the functional recitation of transferring the RF signals at no less than 4 GHz.

-- In reference to Claim(s) 32, Hughes shows (cover sheet) the conductive clip member 26 is solder-less on at least one end 62.

-- In reference to Claim(s) 33, Hughes shows the conductive clip member 26 has a Surface mount contact 36.

-- In reference to Claim(s) 34, Hughes shows the same claimed structure and can complete the functional recitation of mixing the RF signals with a carrier frequency and/or other RF processing signals that add functionality.

-- In reference to Claim(s) 35, it is addressed with claim 22 above.

-- In reference to Claim(s) 36, it is addressed above.

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-- In reference to Claim(s) 37, Hughes shows the same claimed structure and can complete the functional recitation of transferring the RF signals at frequencies no less than 4 GHz with very low losses.

-- In reference to Claim(s) 38, Hughes shows (cover sheet) the conductive clip member 26 is solder-less on at least one end 60.

-- In reference to Claim(s) 39, Hughes shows (cover sheet) a surface mount pressure contact 62.

-- In reference to Claim(s) 40, Hughes shows the same claimed structure and can complete the functional recitation of mixing RF signals with a carrier frequency and/or RF processing signals.

\*\* Claim(s) 26 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Hughes et al.

-- In reference to Claim(s) 26, Hughes shows (cover sheet) and ( figure 2 ) the same claimed structure and can complete the functional recitation of transferring ground signals using other conductive clip member 26 positioned on either side of the conductive clip member 26 that transfers RF signals.

However, Hughes does not show the function of positioning a plurality of housing members adjacent each other.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to duplicate the housing 4 of Hughes into a plurality of housings, since it has been held that the mere duplication of the essential working parts of a device involves only routing skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8 and it would have been obvious to one having ordinary skill in the art at the time the invention was made to rearrange the plurality of housings and place them adjacent each other, since it has been held that rearranging

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parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70. One skilled in the art would be motivated to duplicate the parts to increase the amount of current the assembly of housings could distribute thus allowing the housing assembly to be used in a high data application. One skilled in the art would be motivated to rearrange the housing adjacent each other to reduce the overall size of the assembly thus reducing the weight or amount of and associated cost of insulating plastic material for the assembly that the housing is placed within.

### ***Response to Remarks***

-- In response to applicant's argument (page 9, line 3 ) concerning the Hughes device is more complicated and has more structure than applicant's claimed invention and is therefore patentable over Hughes, the examiner disagrees. Claiming less structure than what is shown by Hughes is seen to be an obvious change that does not make the claimed invention allowable; the fact that Hughes discloses additional structure that is not claimed is not convincing.

### ***Conclusion***

- Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,



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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

- Any inquiry concerning this communication or earlier communications from the examiner should be directed to James R. Harvey whose telephone number is 571-272-2007. The examiner can normally be reached on 8:00 A.M. To 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on 571-272-2800 extension 33.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2800.

- Effective **October 1, 2003**, all patent application related correspondence transmitted by facsimile must be directed to the central facsimile number, **(703) 872-9306**, with a few exceptions *See Fax Automation in Technology Center 1700, 1237 Off. Gaz. Pat. Office 140* (August 29, 2000). Replies to Office actions including after-final amendments that are transmitted by facsimile must be directed to the central facsimile number. Unofficial correspondence such as draft proposed amendments for interviews may continue to be transmitted by facsimile to the Technology Centers.

James R. Harvey, Examiner

jrh  
November 29, 2004

  
**HIEN VU**  
**PRIMARY EXAMINER**